Green Steel
ENVIRONMENTAL

Green Steel PSR™ Sustainable Phosphorus and Sulfur Removal for Wastewater Treatment

What is Green Steel PSR™?

1

Upcycled Granular Additive

Green Steel PSR™ is a patented, upcycled, granulated additive specifically designed to remove phosphorus and sulfur from wastewater.

2

Replaces Traditional Chemicals

Directly replaces hazardous and less effective chemicals such as ferric chloride, ferric sulfate, and aluminum sulfate in wastewater treatment.

3

100% US Sourced & Produced

Ensures reliability, quality, and a reduced carbon footprint through locally sourced materials and domestic manufacturing.

Green Steel PSR™ transforms an industrial byproduct into a high-performance solution, embodying the core principles of a true circular economy.

How Green Steel PSR™ Achieves Superior Results

Sustainable Source Material

Derived from an iron-rich byproduct of steel manufacturing, Green Steel PSR™ ensures environmental sustainability and efficient resource utilization.

Flexible Application

Can be efficiently applied as a dry granule or slurry in both primary and secondary clarifiers, seamlessly integrating into existing wastewater treatment operations.

Rapid & Effective Removal

Achieves up to 80% removal of phosphates and sulfides within hours, with contaminants settling into easily manageable biosolids.

Transformative Benefits of Green Steel PSR™

Cost-Effective

Lower overall operational and procurement costs compared to traditional treatment chemicals.

Eco-Friendly

Supports a circular economy through upcycling, significantly reducing environmental impact.

Enhanced Safety

Non-hazardous and easy to handle, leading to a safer workplace and community.

Low-Risk Transition

Fully compatible with existing infrastructure, backed by a robust buy-back guarantee for peace of mind.

The Hidden Costs of Traditional Wastewater Chemicals

High Chemical Usage

Conventional treatments require large volumes of chemicals, resulting in elevated chloride and sulfate levels in the effluent.

Infrastructure Corrosion

Aggressive chemicals accelerate wear and tear on pipes and equipment, leading to higher maintenance costs and increased operational downtime.

Significant Safety Risks

Handling hazardous materials such as ferric chloride poses significant risks to workers and nearby communities.

Environmental Degradation

Chemical runoff pollutes aquatic ecosystems, disrupting biodiversity and causing long-term environmental damage.

Green Steel PSR™ vs. Ferric Chloride: A Comparison

Attribute	Green Steel PSR™	Ferric Chloride
Cost	Lower overall	High chemical + handling costs
Environmental Impact	Sustainable, upcycled	Increases chlorides in effluent
Equipment Compatibility	Bulk bag unloader	Requires pump systems
Workplace Safety	Safe & easy to handle	Highly corrosive, hazardous
Implementation	Low-risk, seamless	Complex and risky
Scaling	Minimizes scaling	Promotes scale build-up
Dewatering	Faster, more efficient	Less efficient

Green Steel PSR™ provides a holistic upgrade—not just a chemical replacement—enhancing efficiency, safety, and environmental stewardship.

The Volatile Landscape of Chemical Costs

1

Ferric Chloride

Witnessed a 60% price increase due to escalating tariffs and persistent supply chain disruptions, impacting budgets significantly.

2

Ferric Sulfate

Experienced continuous price hikes driven by global shortages and increased demand for its constituent raw materials.

3

Aluminum Sulfate

Anticipates sustained price increases stemming from rising feedstock costs, with no relief in sight for the foreseeable future.

These trends underscore the urgent need for stable, cost-predictable alternatives like Green Steel PSR™.

Achieving Regulatory Excellence with Green Steel PSR™

1

NPDES Phosphorus Compliance

Helps wastewater treatment plants not only meet but exceed stringent NPDES (National Pollutant Discharge Elimination System) phosphorus discharge requirements.

2

Proactive Chloride & Sulfate Management

Avoids the increase of chloride and sulfate levels, positioning facilities favorably for anticipated future regulatory changes and tighter limits.

3

Clean Treatment Efficacy

Delivers highly effective phosphorus and sulfur removal without contributing to harmful chemical buildup or secondary environmental concerns.

Green Steel PSR™ is your partner in maintaining environmental compliance and preparing for a greener regulatory future.

Quantifiable Impact: Green Steel PSR™ in Action

80%

Phosphorus & Sulfide Removal

Achieved within hours, ensuring rapid and effective contaminant reduction.

1

Reduced Scaling

Minimizes scale buildup on equipment, leading to extended asset life and lower maintenance.

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Lower Total Treatment Cost

Significant savings compared to traditional chemical programs, improving budget efficiency.

+

Improved Safety Scores

Due to reduced handling of hazardous materials and a safer operational environment.

These metrics demonstrate the powerful, tangible benefits of integrating Green Steel PSR™ into your wastewater treatment process.

Embarking on Your Green Steel PSR™ Journey

01

Pilot Program Initiation

Identify suitable facilities for a controlled trial implementation of Green Steel PSR™ to demonstrate its efficacy firsthand.

02

Comprehensive Team Training

Provide thorough safety and operational training to your team on the proper handling and application of Green Steel PSR™.

03

Key Performance Indicator Monitoring

Continuously monitor and evaluate critical KPIs, including chemical usage, phosphorus levels, and overall operational costs.

04

Gathering Customer Feedback

Actively solicit testimonials and feedback to refine deployment strategies and highlight success stories.

Contact us today to schedule a consultation and take the first step towards a more sustainable and cost-effective future. visit: **www.greensteelenvironmental.com**